

What is claimed is:

1. A method of making a vaccine comprising the steps of:
obtaining a biological fluid containing a lipid-containing infectious organism from a person or an animal infected with said lipid-containing infectious organism;
extracting said biological fluid with a lipid-extracting solvent, said extraction producing an aqueous phase and a lipid-containing organic phase, said aqueous phase containing said infectious organism; and
isolating said aqueous phase.
2. The method of Claim 1, wherein said biological fluid is selected from the group consisting of whole blood, plasma, pleural fluid, cerebrospinal fluid, culture fluid, and localized body fluid.
3. The method of Claim 1, wherein said lipid-containing infectious organism is selected from the group consisting of viruses, bacteria, protozoa, fungi and molds of the type that contain lipid or lipid-like material in their cell walls.
4. The method of Claim 3, wherein said infectious organism is an enveloped virus.
5. The method of Claim 4, wherein said enveloped virus is selected from the group consisting of human immunodeficiency virus, Hepatitis B virus, Hepatitis C virus, Epstein-Barr virus, Herpes Simplex virus, Cytomegalovirus, human T-cell leukemia virus and cancer virus.

6. The method of Claim 3, wherein said infectious organism is a bacterium selected from the group consisting of tuberculosis bacteria and leprosy bacteria.

7. The method as claimed in Claim 1, in which the step of extracting is accomplished by any procedure taken from the group consisting of mixing, swirling, vortexing, and rotating.

8. The method of Claim 1, including the step of concentrating said aqueous phase to produce a concentrate containing the infectious organism with the lipid substantially removed.

9. The method of Claim 1, including the step of concentrating the aqueous phase by lyophilization.

10. The method of Claim 1, including the step of diluting said biological fluid and diluting said aqueous extract in order to obtain antigens from approximately 100 – 200 viral particles per ml.

11. The method of Claim 1, wherein said lipid-extracting solvent is chloroform and in which the ratio (volume : volume) of the chloroform to the biological fluid used in the extraction step is from about 3:1 to about 5:1.

12. The method of Claim 1, wherein said lipid-extracting solvent is chloroform and in which the ratio (volume : volume) of the chloroform to the biological fluid used in the extraction step is about 3:1.

13. A method of making a therapeutic vaccine including the steps of:
obtaining a biological fluid containing a lipid-containing infectious organism from a person or an animal infected with said lipid-containing infectious organism;
extracting said biological fluid with a lipid-extracting solvent, said extraction producing an aqueous phase and a lipid-containing phase, said aqueous phase containing said infectious organism with the lipid of said lipid-containing infectious organism substantially removed;
separating said aqueous phase from said lipid-containing phase;
isolating a leukocyte fraction from the blood of said person or animal, said isolation being conducted so that said leukocyte fraction is substantially without plasma, free lipid-containing infectious organism, or free antibodies to said lipid-containing infectious organism; and
combining at least some of said aqueous phase with at least some of said leukocyte fraction to produce the therapeutic vaccine.

14. The method of Claim 13, wherein said lipid-extracting solvent is selected from the group consisting of chlorinated hydrocarbons, hydrocarbons, and ethers.

15. The method of Claim 13, wherein said lipid-extracting solvent is chloroform.

16. The method of Claim 13, wherein said leukocyte fraction is obtained by withdrawing a blood sample from said person or said animal; separating the blood cells from the plasma; separating the leukocytes from the plasma and washing the leukocytes free of residual plasma and antibodies.

17. A method of making a therapeutic vaccine according to the steps of:

obtaining a biological fluid containing a lipid-containing infectious organism from a first person or a first animal infected with said lipid-containing infectious organism;

isolating and culturing an infectious organism from said biological fluid to produce a composition containing cultured lipid-containing infectious organism;

extracting an aqueous solution of said lipid-containing infectious organism with a lipid-extracting solvent, the extraction producing an aqueous phase and a lipid-containing phase, said aqueous phase containing the organism with the lipid substantially removed;

separating the aqueous phase from the lipid-containing phase;

isolating a leukocyte fraction from the blood of a second person or a second animal infected with the same lipid-containing infectious organism of said first person or said first animal, the isolation being conducted so that said leukocyte fraction is substantially without plasma, free lipid-containing infectious organism or free antibodies to the lipid-containing infectious organism; and

combining at least some of said aqueous phase with at least some of said leukocyte fraction to produce the therapeutic vaccine.

18. The method of Claim 17, wherein said lipid-extracting solvent is selected from the group consisting of chlorinated hydrocarbons, hydrocarbons and ethers.

19. The method of Claim 17, wherein said lipid-extracting solvent is chloroform.

20. The method of Claim 17, wherein said leukocyte fraction is obtained by withdrawing a blood sample from said second person or said second animal; separating the red blood cells from the plasma; separating the leukocytes from the plasma and washing the leukocytes free of residual plasma and antibodies.

21. A vaccine prepared by the steps of:
obtaining a biological fluid containing a lipid-containing infectious organism from a person or an animal infected with said lipid-containing infectious organism;
extracting said biological fluid, said extraction producing an aqueous phase and a lipid-containing phase, said aqueous phase containing said infectious organism with the lipid substantially removed; and
isolating said aqueous phase.

22. The use of a substance or composition in the manufacture of a medicament for use in the treatment of an infection caused by a lipid-containing infectious organism, the substance or composition comprising a vaccine or a therapeutic vaccine as claimed in Claim 21.

23. A therapeutic vaccine prepared by a method including the steps of:

obtaining a biological fluid containing a lipid-containing infectious organism from a person or animal infected with said lipid-containing infectious organism;

extracting said biological fluid with a lipid-extracting solvent; said step of extraction producing an aqueous phase and a lipid-containing phase, said aqueous phase containing said infectious organism with the lipid substantially removed;

separating said aqueous phase from said lipid-containing phase;

isolating a leukocyte fraction from the blood of said person or said animal, said step of isolation being conducted so that said leukocyte fraction is substantially without plasma, free lipid-containing infectious organism, and free antibodies to the lipid-containing infectious organism; and

combining at least some of said aqueous phase with at least some of said leukocyte fraction to produce the vaccine.

24. A therapeutic vaccine prepared by a method including the steps of:

obtaining a biological fluid containing a lipid-containing infectious organism from a first person or a first animal infected with said lipid-containing infectious organism;

isolating and culturing said infectious organism to produce a composition containing the cultured lipid-containing infectious organism;

extracting an aqueous solution of said lipid-containing infectious organism using a lipid-extracting solvent, the extraction producing an aqueous phase and a lipid-containing phase, said aqueous phase including said organism with the lipid substantially removed;

separating said aqueous phase from said lipid-containing phase;

isolating a leukocyte fraction from the blood of a second person or a second animal infected with said lipid-containing infectious organism, said step of isolation being conducted so that said leukocyte fraction is substantially without plasma, free of said lipid-containing infectious organism or free antibodies to the lipid-containing infectious organism; and

combining at least some of said aqueous phase with at least some of said leukocyte fraction to produce the therapeutic vaccine.

25. A therapeutic vaccine which includes leukocytes which have been exposed *in vitro* to a vaccine produced by the substantial removal of the lipid portion of a lipid-containing infectious organism; the exposure taking place substantially in the absence of the free lipid-containing infectious organism and in the presence of a medium containing serum which is also free of antibodies to the lipid containing infectious organism.

26. A prophylactic vaccine prepared by a method which includes the steps of:

obtaining a biological fluid from a person or an animal infected with a lipid-containing infectious organism;

culturing said biological fluid;

extracting the culture containing the lipid-containing organism using a lipid-extracting solvent, the step of extraction producing an aqueous phase and a lipid phase, said lipid phase containing the infectious organism with the lipid substantially removed; and

isolating said aqueous phase.

27. A substance or composition for use in the prophylaxis of an infection caused by a lipid-containing infectious organism, the substance or composition comprising a prophylactic vaccine as claimed in Claim 26.

28. The use of a substance or composition in the manufacture of a medicament for use in the prophylaxis of an infection caused by a lipid-containing infectious organism, the substance or composition comprising a prophylactic vaccine as claimed in Claim 26.

29. A substance or composition for use in a method of treatment of an infection caused by a lipid-containing infectious organism, the substance or composition comprising a vaccine, or a therapeutic vaccine prepared by a method as claimed in Claim 1.